

What is claimed is:

1. A replaceable media assembly for use with a system that receives the replaceable media, the system having a controller, the replaceable media assembly comprising:

replaceable media;

storage means for storing information, said storage means fixed to the replaceable media; and

communication means for providing communication between the storage means and the controller of the system.

2. The replaceable media assembly of claim 1, wherein the information stored in the storage means is used by the controller of the system to adjust the operation of the system.

3. A replaceable media assembly according to claim 1, wherein the information stored in the storage means relates to the replaceable media.

4. A replaceable media assembly according to claim 1, wherein the information stored in the storage means relates to the performance of the replaceable media.

5. The replaceable media assembly of claim 1, wherein the storage means comprises a memory.

6. The replaceable media assembly of claim 1, wherein the storage means comprises a programmed micro controller.

7. The replaceable media assembly of claim 1, wherein the information stored in the storage means includes a time value that relates to the recommended replacement interval of the replaceable media assembly.

8. The replaceable media assembly of claim 1, wherein the replaceable media comprises a brake pad.

9. The assembly of claim 1, wherein the replaceable media comprises a filter.

10. The replaceable media assembly of claim 9, wherein information stored in the storage means includes an expected pressure drop value that relates to the expected pressure drop through the replaceable media when the replaceable media is clean.

11. The replaceable media assembly of claim 10, wherein the controller of the system reads the expected pressure drop value and adjusts the operation of the system to accommodate the pressure drop.

12. The replaceable media assembly of claim 9, wherein information stored in the storage means includes a maximum pressure drop value that relates to the expected pressure drop through the replaceable media when the replaceable media is dirty.

13. The replaceable media assembly of claim 12, wherein the controller of the system reads the maximum pressure drop value and provides a notification to change the filter when the system detects that the maximum pressure drop value is reached.

14. The replaceable media assembly of claim 1, wherein the storage means comprises a programmed micro-controller and the information stored in the storage means comprises a program.

15. The replaceable media assembly of claim 14, wherein the program causes the micro-controller to communicate with the controller of the system.

16. The replaceable media assembly of claim 15, wherein the program causes the micro-controller to pass a number of performance parameters related to the replaceable media to the controller of the system.

17. The replaceable media assembly of claim 15, wherein the program causes the micro-controller to provide a software upgrade to the controller of the system.

18. The replaceable media assembly of claim 1, wherein the information stored in the storage means includes a serial number or model number of the replaceable media.

19. The replaceable media assembly of claim 18, wherein the controller of the system reads the serial number or model number from the storage means and determines the compatibility of the replaceable media with the system.

20. The replaceable media assembly of claim 1, wherein the information stored in the storage means includes one of the following: a performance parameter, a serial or model number, a sound file, a graphics file, an advertisement file, or a user instruction set.

21. A replaceable filter assembly for use with an HVAC system that receives the replaceable media, the HVAC system having a controller, the replaceable filter assembly comprising:

a filter material;

a carrier for carrying the filter material;

storage means for storing information, said storage means fixed to the carrier;

and

electrical connecting means for electrically connecting the storage means to the controller of the HVAC system when the replaceable filter assembly is received by the HVAC system.

22. The replaceable filter assembly of claim 21, wherein the information stored in the storage means is used by the controller of the HVAC system to adjust the operation of the HVAC system.

23. The replaceable filter assembly of claim 21, wherein the storage means comprises a memory.

24. The replaceable filter assembly of claim 21, wherein the storage means comprises a programmed micro controller.

25. The replaceable filter assembly of claim 21, wherein the information stored in the storage means includes a time value that relates to the recommended replacement interval of the replaceable filter assembly.

26. The replaceable filter assembly of claim 21, wherein information stored in the storage means includes a maximum pressure drop value that relates to the expected pressure drop through the replaceable media when the replaceable media is dirty.

27. The replaceable filter assembly of claim 26, wherein the controller of the HVAC system reads a present pressure drop value from a pressure sensor and provides a notification to change the filter when the HVAC system detects that the present pressure drop value is greater than maximum pressure drop value.

28. The replaceable filter assembly of claim 21, wherein the storage means comprises a programmed micro-controller and the information stored in the storage means comprises a program.

29. The replaceable filter assembly of claim 28, wherein the program causes the micro-controller to communicate with the controller of the HVAC system.

30. The replaceable filter assembly of claim 29, wherein program causes the micro-controller to pass a number of performance parameters related to the replaceable media to the controller of the HVAC system.

31. The replaceable filter assembly of claim 29, wherein the program causes the micro-controller to provide a software upgrade to the controller of the HVAC system.

32. The replaceable filter assembly of claim 21, wherein the information stored in the storage means includes a model number of the replaceable filter assembly.

33. The replaceable filter assembly of claim 32, wherein the controller of the HVAC system reads the model number from the storage means and determines the compatibility of the replaceable media with the HVAC system.

34. The replaceable filter assembly of claim 33, wherein the controller of the HVAC system provides notification to a user of the HVAC system if the replaceable media is not compatible with the HVAC system.

35. The replaceable filter assembly of claim 34, wherein the notification comprises an audible signal.

36. The replaceable filter assembly of claim 35, wherein the audible signal advises the user of a correct replaceable filter assembly model number for the HVAC system.

37. The replaceable filter assembly of claim 34, wherein the notification comprises a visual signal.

38. The replaceable filter assembly of claim 37, wherein the visual signal advises the user of a correct replaceable filter assembly model number for the HVAC system.

39. A method for controlling a system that receives a replaceable media assembly, the system having a controller, the method comprising:

providing a replaceable media assembly that includes a replaceable media component and a storage means for storing information;

providing a communication channel between the storage means of the replaceable media assembly and the controller of the system; and

passing selected information from the storage means to the controller of the system.

40. A method according to claim 39, wherein the replaceable media comprises a filter.

41. A method according to claim 39, wherein the replaceable media comprises a filter and the system comprises an HVAC system.

42. A method according to claim 39, wherein the replaceable media comprises a brake pad.

43. A method according to claim 39, wherein the replaceable media comprises a brake pad and the system comprises a braking system.

44. A method according to claim 39 wherein the storage means comprises a memory.

45. A method according to claim 39 wherein the storage means comprises a programmed micro-controller.

46. A method of upgrading a program of a controller of a system that receives a replaceable media assembly, the method comprising:

providing a replaceable media assembly including a storage means;

electrically coupling the storage means to the controller of the system when the system receives the replaceable media assembly; and

transferring a program from the storage means of the replaceable media assembly to the controller of the system.

47. A method according to claim 46, wherein the replaceable media comprises a filter.

48. A method according to claim 46, wherein the replaceable media comprises a filter and the system comprises an HVAC system.

49. A method according to claim 46, wherein the replaceable media comprises a brake pad.

50. A method according to claim 46, wherein the replaceable media comprises a brake pad and the system comprises a braking system.

51. A method according to claim 46, wherein the storage means comprises a memory.

52. A method according to claim 46, wherein the storage means comprises a programmed micro-controller.